Proposal for Stroke Program:

The purpose of this proposal is to identify the need to increase resources allocated to the JCMC Primary Stroke Center.

Background:

JCMC was established as a Primary Stroke Center on 4/27/2010. The stroke center is managed by Michele Lopez RN, NSN, CEN and Dr. Gerrard Ferrer.

Requirements to Maintain the Primary Stroke Center:

- ☑ Physician leadership-board certified neurologist who meets criteria outlined by the DOH
- ☑ Stroke Center Coordinator-who maintains 8 contact hours of stroke education
- ☑ Stroke Response Team that maintains a 15 minute response time for patient care
- ☑ Access to Emergency Care-established through our ED and our EMS division
- ☑ Access to a sponsoring Comprehensive Stroke Center –Established with Overlook Hospital 7/31/10, prior sponsorship was with UMDNJ
- ☑ Credentialed neurologists and ED physicians who maintain their required 8 CMEs and serve as members of the stroke response team
- ☑ Minimum of 2 Community Education Programs
- ☑ Staff Education:
    - Members of Stroke Response Team require 8 hours of education annually. Currently our residents, ED physicians, neurologists, and nursing staff in the ED/ICU/CCU/5E/7E will have this education.
    - PCTs who routinely care for stroke pts need 4 hours of annual education (ED/ICU/CCU/5E/7E)
    - Evidence that all other health care professionals receive stroke education on an annual basis. This is completed through the employee mandatory education manual and through the competency programs for RNs and PCTs.
    - Education for pre-hospital providers EMS requires annual education.

- ☑ Establishment and maintenance of a patient database that is used to measure quality and track outcomes
- ☑ Development and use of standardized protocols representing evidenced based practice
- ☑ Established Performance Improvement Plan

Expansion of Primary Stroke Center:

The goals of the stroke center at JCMC are to increase patient volume, expand staff education and competency and increase community education programs.

1. ***Stroke center volume***:
   In 2009 there were 265 patients treated for stroke, an average of 22 patients per month
   In 2010 from Jan.1 through June 2010 there were 196 patients treated for stroke. This is average of 33 patients per month.
   Continuing at this volume there will be a projected 396 patients. The annual increase in ED volume and increase in public education programs supports the projected increase in stroke patients.

Volume by month for 2010:

January	24 patients
February	25 patients
March	27 patients
April	32 patients-Designation as Primary Stroke Center established on 4/27/10
May	37 patients
June	33 patients

Role of the Stroke Program Coordinator:

1. Serve as a clinical resource to all staff
2. Coordinate patient care and intervene to facilitate standards and timeliness of care
3. Educate patients and family members about the diagnosis of stroke, stroke care, stroke prevention, stroke risk stratification and the rehabilitation process
4. Establish and update nursing and physician protocols using evidenced based practice
5. Develop and present annual education programs for nurses, residents, PCTs, and all other hospital employees
6. Develop and provide education to pre-hospital providers
7. Develop and implement community education programs
8. Carry out administrative duties for the Primary Stroke Center
9. Evaluate current work flow of various nursing units and ancillary departments and implement change to facilitate an improvement in stroke care delivery
10. Evaluate quality of care against benchmarks and implement changes to improve outcomes
11. Collaborate with members of the Performance Improvement Team to manage the patient database (Get With the Guidelines) and NJ Stroke Registry.
12. Serve as an active member of the NJ Stroke Consortium
13. Serve as an active participant in functions sponsored by various agencies that promote stroke prevention (ie. American Heart/American Stroke Association).

14. Chair stroke meetings, maintain minutes and maintain other documents for evidence as required for primary stroke designation.
15. Participate in activities that promote the primary stroke center at JCMC including radio interviews, interviews for newspapers articles, etc.

Current Barriers:

1. Lack of staff support: Stroke program is run by 1 program coordinator. In the absence of the stroke program coordinator, there is no oversight of patient care and the program
2. Physician leadership-Stroke physician director has limited time to participate in daily rounds of stroke patients
3. Lack of cost center to fund education programs and community events
4. Lack of personnel to oversee all aspects of registry and databases used to track stroke patients and measure quality of care

Growth of Primary Stroke Center:

The following areas have been identified as areas of growth for the primary stroke program.

1. Increase facility wide education programs to improve quality of care
   - ☑ From 6/09-8/10 284 RNs attended a 6 hour stroke education course and completed an additional certification on-line. All education was designed and delivered by M. Lopez
   - ☑ From 1/10-8/10 79 PCTs attended a 4 hour stroke education course

   Stroke program requirements include 8 hours of annual education for RNs who routinely care for stroke patients and are part of a stroke response team (ED, ICU, CCU, CCSD, 5E, 7E). All education was designed and delivered by M. Lopez

   Stroke program requirements include 4 hours of annual education for unlicensed assistive personnel who care for stroke patients (ED, ICU, CCU, CCSD, 5E, 7E)

   The annual education cycle will begin in Sept 2010. Components of the education will be on the LH Intranet. Contact hour applications will be filed. All work related to the education of the staff is developed and delivered by M. Lopez. On days that programs are conducted, there is limited or no time available for patient rounds.

2. Increase community education:
   - ☑ In 2009 participated in 2 health fairs and 1 Dinner with the Doctor Program providing stroke prevention education
   - ☑ 1/10-8/10 -Conducted 16 community events educating 600 people about stroke prevention. 7 more events are already scheduled for Sept-Oct 2010.

- ☑ Goal is to provide a stroke screening health fair here at JCMC which includes a lecture and BP screenings and stroke risk assessment.

3. Increase education programs for pre-hospital providers
   - ☑ Mandatory education was provided for our EMS staff. The goal is to provide an education program for the other EMS agencies that serve Hudson County in an effort to highlight our status as a primary stroke center. Other pre-hospital providers include volunteer EMS agencies and BLS transport agencies.
   - ☑ Extend education programs to local fire and police since they are often the First Responders to medical emergencies.

4. Improve quality of care as evidenced by an increase in core measures
   - ☑ Education has been provided to residents and nurses about stroke core measures
   - ☑ Insrevices were conducted on the med-surg units in July for 75 RNs concentrating on stroke core measures
   - ☑ Education on core measures needs to continue to raise awareness of the required elements of stroke care

Staffing Proposal:

1. There is a need to provide additional support to the stroke center. Currently, there is no inter-disciplinary team available to oversee the care of stroke patients. After business hours and during time away from JCMC, the role of stroke coordinator is not fulfilled, there is no counter-part for the stroke program coordinator.
2. There are two different databases/registries used for stroke patients- the GWTG program and the NJ state registry run by the DOH. Both of these registries require consistent oversight to manage the frequent updates and increased workload by the NJ DOH. The GWTG database has annual updates, changes to dates for chart abstraction submission and implements new patient management tools. Both databases have deadlines that change according to their need to fix mapping issues. All pts with the diagnosis of stroke and TIA are included. The NJDOH is expanding this to include pts who are evaluated in the ED for TIA/stroke but are not admitted.
3. The NJ DOH submits to the hospital quarterly "error reports". These reports require a chart abstractor to go back into charts and add information into specific fields. Sometimes that information was not available in the medical record. The 1st quarter of 2010 had 60 charts that needed to be re-evaluated. K. Sietsma will review the error list and correct this information for submission to the DOH.
   a. Chart abstraction for stroke is the most comprehensive of all the core measures with 148 fields that need to be entered
   b. Currently there is no mechanism for even demographic data to be carried over from one database to another, increasing the workload of chart abstractions

c. Chart abstraction requires the use of multiple programs to search for data and patient information: Quadramed, EDIMS, HPF, ResQ GWTG, etc.
d. Currently the average time to abstract a stroke chart is 60 minutes. This does not include running reports, converting information into excel files, reconciling databases, reconciling patient lists, etc.

4. Currently we are abstracting only a sample size of charts from Quadramed. The goal is to do 100% Chart abstraction, as recommended by the NJ DOH.
    a. The minimum time for chart abstraction for a proficient staff member is 1 hour multiplied by an monthly average of 32 charts in 2010 equals 132 hours per month Chart abstractions are being managed by K. Sietsma, V. Silvestri, and F. Matrovich-all of whom have additional responsibilities.

The proposal is to establish a separate cost center for stroke chart abstraction and dedicate staff to assume the role of stroke chart abstractor and database manager. The trauma division has a full time employee manage their registry with a volume of 681. The stroke volume is half of the trauma volume and does not even have a part time employee dedicated to this responsibility.

The separate cost center would allow improved tracking of the cost to operate a primary stroke center.

Additional staff to support the stroke center at least on a part time basis is needed to expand the stroke program at JCMC. We are planning to build a neuro-radiology suite and the patient volume continues to grow. More oversight of the stroke program is needed for both the clinical and administrative responsibilities.